

REMARKS/ARGUMENTS

I. General Remarks.

Applicants respectfully request that the Examiner reconsider the application in view of the following remarks.

II. Disposition of the Claims.

At the time of the Office Action, Claims 1-12, 15-28, 31-44, 47, and 48 were pending in the application. Claims 1-12, 15-28, 31, and 32 were allowed. Claims 33, 34, 37-44, and 48 were rejected. Claims 6, 22, 35, 36, 38, and 47 were objected to. Claims 6, 22, and 38 have been amended herein.

III. Allowable Subject Matter.

Applicants note with appreciation the Examiner's indication that Claims 1-12, 15-28, 31, and 32 are allowed. Applicants also note with appreciation the Examiner's indication that Claims 35, 36, and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

IV. Claim Objections.

Claims 6, 22, and 38 were objected to because the claims were missing the word "of" after "group consisting." Claims 6, 22, and 38 have been amended to correct this informality. Accordingly, Applicants respectfully request that the objections to Claims 6, 22, and 38 be withdrawn.

V. Rejections Under 35 U.S.C. § 102.

A. Claims 33, 34, 38-41, 43, and 48 are not Anticipated by the *Sjöström* Reference.

Claims 33, 34, 38-41, 43, and 48 were rejected under U.S.C. § 102(b) as being anticipated by Sjöström et al., "Simple Gel Swelling Experiments distinguish between Associating and Nonassociating Polymer--Surfactant Pairs," *Langmuir*, Volume 17, pages 3836-

3843 (2001) (“*Sjöström*”). Applicants respectfully traverse these rejections for the reasons stated below.

In order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, all the elements of the claimed invention must be found within a single prior art reference. *Panduit Corp. v. Dennison Manufacturing Co.*, 774 F.2d 1082, 1101, 227 USPQ 337, 350 (Fed. Cir. 1985). Applicants respectfully submit that each and every element of Claims 33, 34, 38-41, 43, and 48 is not found within the *Sjöström* reference.

Claim 33 recites:

An aqueous treating fluid composition for treating a subterranean formation comprising:
water;
a water soluble hydrophobically modified gelling agent polymer produced by grafting a low concentration of hydrophobic monomers onto said gelling agent polymer;
a crosslinking agent; and
an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration;
wherein said ionic surfactant is present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition.

Applicants submit that *Sjöström* fails to teach, suggest, or disclose each of these elements. For example, *Sjöström* fails to teach, suggest, or disclose “an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration.” In fact, *Sjöström* is silent regarding the radiuses of gyration of the resulting gelling agent polymer molecules. Moreover, the portion of *Sjöström* relied upon by the Examiner actually states that “[a] new feature apparent in both swelling isotherms of Figure 7 . . . is a marked deswelling of the gels at low surfactant concentrations.” p. 3840 (emphasis added). *Sjöström* goes on to posit that this “shrinking of the gel” is due to mixed micelles that serve as additional physical cross-links. *Id.* Therefore, rather than increasing the radiuses of gyration of the gelling agent polymer molecules, as recited in Claim 33, the surfactant in *Sjöström* actually shrinks the gel. For at least this reason, the rejection of Claim 33 is improper.

Sjöström also fails to teach, suggest, or disclose that the ionic surfactant is “present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition.” In fact, *Sjöström* makes no mention of the amount of surfactant present in the fluid as a percentage of the weight of the composition. Therefore, the rejection of Claim 33 is also improper for this additional reason. Accordingly, Applicants respectfully request that the rejection of Claim 33 be withdrawn.

Claims 34, 38-41, 43, and 48 depend from Claim 33. Therefore, Applicants submit that Claims 34, 38-41, 43, and 48 are allowable, for example, for reasons similar to those discussed above with regard to Claim 33. As such, Applicants respectfully request that the rejections of Claims 34, 38-41, 43, and 48 be withdrawn.

B. Claims 33, 34, 38-41, 43, and 48 are not Anticipated by the *Rosen* Reference.

Claims 33, 34, 38-41, 43, and 48 were rejected under U.S.C. § 102(b) as being anticipated by Rosen et al., “Responsive Polymer Gels Based on Hydrophobically Modified Cellulose Ethers and Their Interactions with Ionic Surfactants,” *Langmuir*, Volume 14, pages 5795-5801 (1998) (“*Rosen*”). Applicants respectfully traverse these rejections for the reasons stated below.

As stated above, in order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, all the elements of the claimed invention must be found within a single prior art reference. *Panduit Corp. v. Dennison Manufacturing Co.*, 774 F.2d 1082, 1101, 227 USPQ 337, 350 (Fed. Cir. 1985). Applicants respectfully submit that each and every element of Claims 33, 34, 38-41, 43, and 48 is not found within the *Rosen* reference.

Claim 33 recites:

An aqueous treating fluid composition for treating a subterranean formation comprising:

water;

a water soluble hydrophobically modified gelling agent polymer produced by grafting a low concentration of hydrophobic monomers onto said gelling agent polymer;

a crosslinking agent; and

an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration;

wherein said ionic surfactant is present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition.

Applicants submit that *Rosen* fails to teach, suggest, or disclose each of these elements. For example, *Rosen* fails to teach, suggest, or disclose “an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration.” In fact, *Rosen* makes no mention of the radiuses of gyration of the resulting gelling agent polymer molecules. For at least this reason, the rejection of Claim 33 is improper.

Rosen also fails to teach, suggest, or disclose that the ionic surfactant is “present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition.” In fact, *Rosen* includes no disclosure regarding the amount of surfactant present in the fluid as a percentage of the weight of the composition. Therefore, for yet another reason, the rejection of Claim 33 is improper. Accordingly, Applicants respectfully request that the rejection of Claim 33 be withdrawn.

Claims 34, 38-41, 43, and 48 depend from Claim 33. Therefore, Applicants submit that Claims 34, 38-41, 43, and 48 are allowable, for example, for reasons similar to those discussed above with regard to Claim 33. As such, Applicants respectfully request that the rejections of Claims 34, 38-41, 43, and 48 be withdrawn.

C. Claims 33, 34, 37, and 38-43 are not Anticipated by the *Rohrbaugh* Reference.

Claims 33, 34, 37, and 38-43 were rejected under U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0180466 by Rohrbaugh et al. (“*Rohrbaugh*”). Applicants respectfully traverse these rejections for the reasons stated below.

As stated above, in order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, all the elements of the claimed invention must be found within a single prior art reference. *Panduit Corp. v. Dennison Manufacturing Co.*, 774 F.2d 1082, 1101, 227 USPQ 337, 350 (Fed. Cir. 1985). Applicants respectfully submit that each and every element of Claims 33, 34, 38-41, 43, and 48 is not found within the *Rosen* reference.

Claim 33 recites:

An aqueous treating fluid composition for treating a subterranean formation comprising:
water;
a water soluble hydrophobically modified gelling agent polymer produced by grafting a low concentration of hydrophobic monomers onto said gelling agent polymer;
a crosslinking agent; and
an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration;
wherein said ionic surfactant is present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition.

Applicants submit that *Rohrbaugh* fails to teach, suggest, or disclose each of these elements. For example, *Rohrbaugh* fails to teach, suggest, or disclose “a water soluble hydrophobically modified gelling agent polymer produced by grafting a low concentration of hydrophobic monomers onto said gelling agent polymer.” In fact, *Rohrbaugh* includes no mention of a “gelling agent polymer” Moreover, the portion of *Rohrbaugh* relied upon by the Examiner actually discloses hydrophilic surface polymers, not hydrophobically modified gelling agent polymers. See ¶¶ 119-125. For at least this reason, the rejection of Claim 33 is improper.

Rohrbaugh also fails to teach, suggest, or disclose “an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration.” In fact, *Rohrbaugh* is silent regarding the radiuses of gyration of the resulting polymer molecules. Therefore, although the Examiner concludes that “[t]he polymer and surfactant [in *Rohrbaugh*] would clearly associate as in the present invention,” Applicants respectfully submit that the Examiner has not provided any basis for his conclusion. For this reason, as well, the rejection of Claim 33 is improper.

Rohrbaugh also fails to teach, suggest, or disclose an aqueous treating fluid composition comprising “a crosslinking agent.” Instead, the portion of *Rohrbaugh* relied upon by the Examiner merely discloses that the temperature at which the hard surface coating composition may be heat dried “could be influenced by accelerants, i.e., solvents and crosslinking agents.” ¶ 259. *Rohrbaugh*, however, fails to teach, suggest, or disclose that its coating composition actually includes such a crosslinking agent. In fact, crosslinking agents are absent from

Rohrbaugh's listing of optional ingredients. See ¶¶ 197, 250. For yet this additional reason, the rejection of Claim 33 is improper. Therefore, Applicants respectfully request that the rejection of Claim 33 be withdrawn.

Claims 34, 37, and 38-43 depend from Claim 33. Therefore, Applicants submit that Claims 34, 37, and 38-43 are allowable, for example, for reasons similar to those discussed above with regard to Claim 33. As such, Applicants respectfully request that the rejections of Claims 34, 37, and 38-43 be withdrawn.

VI. Rejections Under 35 U.S.C. § 103.

A. Claims 33 and 44 are not Unpatentable over the *Rohrbaugh* Reference.

Claims 33 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Rohrbaugh*. Applicants respectfully traverse these rejections for the reasons stated below.

In order to establish a *prima facie* case of obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art, *In re Royka*, 490 F.2d 981 (CCPA 1974), and the teaching or suggestion to make the claimed combination must be found in the prior art and not based on Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 706.02(j). Applicants respectfully submit that the Examiner has not met this burden.

As discussed above with regard to the 35 U.S.C. § 102 rejection of Claim 33, *Rohrbaugh* fails to teach, suggest, or disclose each and every element of Claim 33. Therefore, Applicants submit that the 35 U.S.C. § 103 rejection of Claim 33 is also improper. Accordingly, Applicants respectfully request that the rejection of Claim 33 be withdrawn.

Claim 44 depends from Claim 33. Therefore, Applicants submit that Claims 44 is allowable, for example, for reasons similar to those discussed above with regard to Claim 33. As such, Applicants respectfully request that the rejection of Claim 44 be withdrawn.

VII. No Waiver.

All of Applicants' arguments are made without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the cited references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in an Appeal, if appropriate. Moreover, Applicants' silence in the face of any additional statements

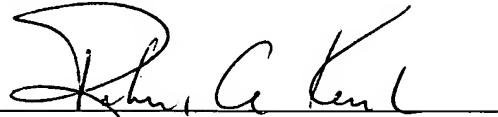
made by the Examiner, for example, statements regarding what would be obvious to one of ordinary skill in the art, should not be interpreted as acquiescence. Instead, Applicants believe the example distinctions discussed herein are sufficient to overcome the Examiner's rejections.

SUMMARY

In light of the above remarks and amendments, Applicants respectfully request reconsideration and withdrawal of the outstanding objections and rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe no fees are due in association with this filing. However, should the Commissioner deem that any fees are due, including any fees for extensions of time, the Commissioner is authorized to debit the Deposit Account No. 08-0300 of Halliburton Energy Services, Inc. for any such underpayment.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert A. Kent", written over a horizontal line.

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Date: November 27, 2006